


Stanford



Bruce McCandliss

Professor of Education and, by courtesy, of Psychology
Graduate School of Education

 NIH Biosketch available Online

 Curriculum Vitae available Online

CONTACT INFORMATION

• Administrative Contact

Kristin Barklund

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Bio

ACADEMIC APPOINTMENTS

- Professor, Graduate School of Education
- Professor (By courtesy), Psychology
- Member, Maternal & Child Health Research Institute (MCHRI)
- Member, Wu Tsai Neurosciences Institute

LINKS

- My Lab Site: <https://edneuroinitiative.stanford.edu/>

Research & Scholarship

RESEARCH INTERESTS

- Brain and Learning Sciences
- Diversity and Identity
- Psychology
- Research Methods
- Technology and Education

Teaching

COURSES

2019-20

- Educational Neuroscience: EDUC 266 (Win)
- Learning Sciences and Technology Design Research Seminar and Colloquium: EDUC 291 (Win)

2018-19

- Educational Neuroscience: EDUC 266 (Win)

2017-18

- Cognitive Development in Childhood and Adolescence: EDUC 368 (Win)
- Development and Psychological Sciences (DAPS) Faculty Student Seminar: EDUC 465 (Aut, Win, Spr)
- Educational Neuroscience: EDUC 266 (Aut)
- Topics in Cognition and Learning: Technology and Multitasking: EDUC 218 (Spr)

2016-17

- Development and Psychological Sciences (DAPS) Faculty Student Seminar: EDUC 465 (Aut, Win, Spr)
- Educational Neuroscience: EDUC 266 (Win)
- Literacy Development and Instruction: EDUC 258 (Aut)
- Topics in Cognition and Learning: Technology and Multitasking: EDUC 218 (Spr)

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

Arianna Yuan

Postdoctoral Faculty Sponsor

Robin Irej, Fang Wang

Master's Program Advisor

Tal Koren

Doctoral Dissertation Co-Advisor (AC)

Xingyu Li

Doctoral (Program)

Lindsey Hasak, Candice Kim, Trang Nguyen, Ethan Roy, Julian Siebert

Publications

PUBLICATIONS

- **Cognitive Predictors of Difficulties in Math and Reading in Pre-Kindergarten Children at High Risk for Learning Disabilities** *JOURNAL OF EDUCATIONAL PSYCHOLOGY*
Barnes, M. A., Clemens, N. H., Fall, A., Roberts, G., Klein, A., Starkey, P., Mccandliss, B., Zucker, T., Flynn, K.
2020; 112 (4): 685–700
- **Distinct Representations of Magnitude and Spatial Position within Parietal Cortex during Number-Space Mapping** *JOURNAL OF COGNITIVE NEUROSCIENCE*
Kanayet, F. J., Mattarella-Micke, A., Kohler, P. J., Norcia, A. M., McCandliss, B. D., McClelland, J. L.
2018; 30 (2): 200–218
- **Event-related potential differences in children supplemented with long-chain polyunsaturated fatty acids during infancy.** *Developmental science*
Liao, K., McCandliss, B. D., Carlson, S. E., Colombo, J., Shaddy, D. J., Kerling, E. H., Lepping, R. J., Sittiprapaporn, W., Cheatham, C. L., Gustafson, K. M.
2016
- **Effects of Tutorial Interventions in Mathematics and Attention for Low-Performing Preschool Children** *JOURNAL OF RESEARCH ON EDUCATIONAL EFFECTIVENESS*
Barnes, M. A., Klein, A., Swank, P., Starkey, P., McCandliss, B., Flynn, K., Zucker, T., Huang, C., Fall, A., Roberts, G.
2016; 9 (4): 577–606
- **Does Music Training Enhance Literacy Skills? A Meta-Analysis** *FRONTIERS IN PSYCHOLOGY*
Gordon, R. L., Fehd, H. M., McCandliss, B. D.

2015; 6

- **Hemispheric specialization for visual words is shaped by attention to sublexical units during initial learning.** *Brain and language*
Yoncheva, Y. N., Wise, J., McCandliss, B.
2015; 145-146: 23-33
- **Hemispheric specialization for visual words is shaped by attention to sublexical units during initial learning** *BRAIN AND LANGUAGE*
Yoncheva, Y. N., Wise, J., McCandliss, B.
2015; 145: 23-33
- **Neuroimaging correlates of handwriting quality as children learn to read and write** *FRONTIERS IN HUMAN NEUROSCIENCE*
Gimenez, P., Bugescu, N., Black, J. M., Hancock, R., Pugh, K., Nagamine, M., Kutner, E., Mazaika, P., Hendren, R., McCandliss, B. D., Hoeft, F.
2014; 8
- **The emergence of “groupitizing” in children’s numerical cognition** *Journal of experimental child psychology*
Starkey, G. S., McCandliss, B. D.
2014; 126: 120-137
- **Mise en place: Setting the stage for thought and action** *Trends in Cognitive Sciences*
Weisberg, D. S., Hirsh-Pasek, K., Golinkoff, R. M., McCandliss, B. D.
2014; 18 (6): 276-278
- **The cognitive mechanisms of the SNARC effect: an individual differences approach** *PloS one*
Viarouge, A., Hubbard, E. M., McCandliss, B. D.
2014; 9 (4): e95756
- **Selective attention to phonology dynamically modulates initial encoding of auditory words within the left hemisphere** *NeuroImage*
Yoncheva, Y., Maurer, U., Zevin, J. D., McCandliss, B. D.
2014; 97: 262-270
- **Orthographic influences on division of labor in learning to read Chinese and English: Insights from computational modeling** *Bilingualism: Language and Cognition*
Yang, J., Shu, H., McCandliss, B. D., Zevin, J. D.
2013; 16 (2): 354-366
- **Effects of rhyme and spelling patterns on auditory word ERPs depend on selective attention to phonology** *Brain and language*
Yoncheva, Y. N., Maurer, U., Zevin, J. D., McCandliss, B. D.
2013; 124 (3): 238-243
- **Neural systems predicting long-term outcome in dyslexia** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Hoeft, F., McCandliss, B. D., Black, J. M., Gantman, A., Zakerani, N., Hulme, C., Lyytinen, H., Whitfield-Gabrieli, S., Glover, G. H., Reiss, A. L., Gabrieli, J. D.
2011; 108 (1): 361-366
- **Scientific and Pragmatic Challenges for Bridging Education and Neuroscience** *EDUCATIONAL RESEARCHER*
Varma, S., McCandliss, B. D., Schwartz, D. L.
2008; 37 (3): 140-152
- **Extent of microstructural white matter injury in postconcussive syndrome correlates with impaired cognitive reaction time: a 3T diffusion tensor imaging study of mild traumatic brain injury** *American Journal of Neuroradiology*
Niogi, S., Mukherjee, P., Ghajar, J., Johnson, C., Kolster, R., Sarkar, R., Lee, H., Meeker, M., Zimmerman, R., Manley, G.
2008; 29 (5): 967-973